

**Notice of Allowability**

Application No.

10/807,959

Examiner

Sun J. Lin

Applicant(s)

PRASAD ET AL.

Art Unit

2825

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Reopen Prosecution according to Panel Decision from Pre-Appeal Brief Review.
2. ☒ The allowed claim(s) is/are 1-6,8-14,16-22, 24 and 25, renumbered (37CFR1.126).
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some\* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

### ***Examiner's Amendment***

An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Applicants' attorney *Travis W. Thomas* gave authorization for this examiner's amendment on November 8, 2006. The application has been amended, based on original application filed on 03/23/2004, as follows:

Claim 1, line 6, change "statistics; and" to **—statistics, wherein at least one of the second-order statistics is a conflict-to-decision ratio (CDR); and—**.

**Claim 7, is cancelled**

Claim 9, line 6, change "statistics; and" to **—statistics, wherein at least one of the second-order statistics is a conflict-to-decision ratio (CDR); and—**.

**Claim 15, is cancelled**

Claim 17, line 6, change "statistics; and" to **—statistics, wherein at least one of the second-order statistics is a conflict-to-decision ratio (CDR); and—**.

**Claim 23, is cancelled**

Claim 25, line 6, change "statistics; and" to **—statistics, wherein at least one of the second-order statistics is a conflict-to-decision ratio (CDR); and—**.

### ***Reasons for Allowance***

Claims 1 – 6, 8 – 14, 16 – 22, 24 and 25 are allowed over the prior art of record. An examiner's statement of reasons for allowance is given in the following:

Claims 1 – 6, 8 – 14, 16 – 22, 24 and 25 are allowed because the prior art does not teach or fairly suggest the following subject matter:

- A system for scheduling events in a Boolean satisfiability (SAT) solver, the system comprising an engine operable to derive one or more second-order statistics on a search for a valid solution to an SAT problem from one or more first-order statistics, wherein at least one of the second-order statistics is a conflict-to-decision ratio (CDR) in combination with other limitations as recited in independent **Claim 1**;

- A method for scheduling events in a Boolean satisfiability (SAT) solver, the method comprising deriving one or more second-order statistics on a search for a valid solution to an SAT problem from one or more first-order statistics, wherein at least one of the second-order statistics is a conflict-to-decision ratio (CDR) in combination with other limitations as recited in independent **Claim 9**;
- Logic for scheduling events in a Boolean satisfiability (SAT) solver, the logic encoded in media and when executed operable to derive one or more second-order statistics on a search for a valid solution to an SAT problem from one or more first-order statistics, wherein at least one of the second-order statistics is a conflict-to-decision ratio (CDR) in combination with other limitations as recited in independent **Claim 17**;
- A system for scheduling events in a Boolean satisfiability (SAT) solver, the system comprising means for deriving one or more second-order statistics on a search for a valid solution to an SAT problem from one or more first-order statistics, wherein at least one of the second-order statistics is a conflict-to-decision ratio (CDR) in combination with other limitations as recited in independent **Claim 25**.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

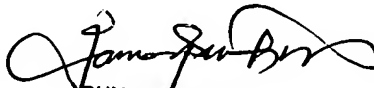
### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sun J. Lin whose telephone number is (571) 272-1899. The examiner can normally be reached on Monday to Friday from 9:00am to 6:00pm.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free) If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (in USA or CANADA) or 571-272-1000.

Sun J. Lin  
Primary Examiner  
Art Unit 2825



SUN JAMES LIN  
PRIMARY EXAMINER